

CLAIMS

What is claimed is:

1. A ventilation exhaust fan, comprising:
a housing having a fluid inlet through which fluid is received within the housing and a fluid outlet through which fluid exits the housing, the housing adapted to interchangeably receive
a first module having a first support plate; and
a second module having a second support plate, each of the first and second modules having at least one of a motor and a fan wheel operable to generate a flow of fluid out of the fluid outlet;
wherein the at least one of the fan wheel and the motor of the first module has a size different than the at least one of the fan wheel and the motor of the second module, respectively.
2. The ventilation exhaust fan of claim 1, wherein each of the first and second modules includes a fan wheel, and wherein the fan wheel of the first module has a different size than the fan wheel of the second module.
3. The ventilation exhaust fan of claim 2, wherein the size is an axial length of each fan wheel.
4. The ventilation exhaust fan of claim 2, wherein the size is a diameter of each fan wheel.
5. The ventilation exhaust fan of claim 1, wherein each of the first and second modules include a motor, and wherein the motor of the first module has a different size than the motor of the second module.
6. The ventilation exhaust fan of claim 5, wherein the size is a measure of output power of each motor.
7. The ventilation exhaust fan of claim 5, wherein the size is a dimension of each motor.

8. The ventilation exhaust fan of claim 1, wherein the housing has a first fastener, and wherein the first and second modules each have a second fastener releasably engageable with the first fastener to couple the first and second modules to the housing.
9. The ventilation exhaust fan of claim 8, wherein each of the second fasteners is a tabs and the first fastener is a recess defined by the housing.
10. The ventilation exhaust fan of claim 1, wherein the second support plate defines a recess within which the fan wheel of the second module is at least partially received.
11. The ventilation exhaust fan of claim 1, wherein each of the first and second modules includes a motor, and wherein the motor of the first module has a position with respect to a periphery of the first support plate which is different than a position of the motor of the second module with respect to a periphery of the second support plate.
12. The ventilation exhaust fan of claim 1, wherein the housing includes a first electrical connector, and wherein the first and second modules each include a second electrical connector releasably engageable with the first electrical connector to electrically connect the housing with the first and second modules, respectively.
13. The ventilation exhaust fan of claim 1, wherein each of the first and second modules have a cover which is engageable with the housing adjacent the fluid inlet, wherein the cover of the first module has a different size than the cover of the second module.
14. The ventilation exhaust fan of claim 1, wherein each of the first and second support plates is pivotably engageable with the housing.

15. A replacement ventilation exhaust module for replacement of an existing ventilation module in a fan housing, the existing ventilation module having a first support plate, a first motor coupled to the first support plate, and a first fan wheel drivably coupled to the first motor, the first support plate releasably coupled within the fan housing at a location, the replacement ventilation exhaust module comprising:
- a replacement support plate adapted to be releasably coupled to the fan housing at the location;
 - a replacement motor coupled to the replacement support plate; and
 - a replacement fan wheel drivably coupled to the replacement motor;
- wherein at least one of the replacement motor and the replacement fan wheel is different in size than the first motor and first fan wheel, respectively.
16. The replacement ventilation exhaust module of claim 15, wherein the first fan wheel has a first length in an axial direction of the first fan wheel, and wherein the replacement fan wheel has a second length in an axial direction of the second fan wheel different than the first length.
17. The replacement ventilation exhaust module of claim 15, wherein the first motor has a first output power and the replacement motor has a second larger output power.
18. The replacement ventilation exhaust module of claim 15, wherein the first motor has a first size and the replacement motor has a second larger size.
19. The replacement ventilation exhaust module of claim 15, wherein the housing includes at least one fastener, and wherein the at least one fastener is engageable with each of the first module and the replacement module.

20. The replacement ventilation exhaust module of claim 15, wherein the housing includes a base wall, and wherein the replacement module is pivotably coupled with the housing for movement between a first position in which the replacement support plate is substantially parallel to the base wall, and a second position, in which the replacement support plate is at an angle with respect to the base wall.

21. The replacement ventilation exhaust module of claim 15, wherein the replacement support plate defines a recess within which the replacement fan wheel is at least partially received.

22. The replacement ventilation exhaust module of claim 16, wherein the housing includes an electrical connector, and wherein each of the first motor and the replacement motor is electrically connectable with the electrical connector to supply electrical power to the first module and the replacement module, respectively.

23. The replacement ventilation exhaust module of claim 16, wherein the first motor has a first size and the replacement motor has a different size, and wherein the first module includes a first cover sized to at least partially enclose the first motor and the replacement module includes a replacement cover having a different size to at least partially enclose the replacement motor.

24. A ventilation exhaust fan, comprising:
a fan housing having
a plurality of walls defining an interior space; and
an outlet through which fluid is exhausted from the fan housing;
a first mounting plate;
a first motor coupled to the first mounting plate;
a first fan drivably coupled to the first motor, wherein the first mounting plate,
the first motor, and the first fan are removable from and insertable
within the fan housing as a single unit;
a second mounting plate;
a second motor coupled to the second mounting plate; and
a second fan drivably coupled to the second motor, wherein the second
mounting plate, the second motor, and the second fan are removable
from and insertable within the fan housing as a single unit;
at least one of the first motor and first fan has a size different than the second
motor and second fan, respectively.
25. The ventilation exhaust fan of claim 24, wherein the size is measure of an
axial length of the first and second fans.
26. The ventilation exhaust fan of claim 24, wherein the size is a measure of the
output power of the first and second motors.
27. The ventilation exhaust fan of claim 24, wherein the first mounting plate and
the second mounting plate each include at least one fastener, and wherein the
fasteners are engageable with the housing to couple each of the first and second
mounting plates to the housing.
28. The ventilation exhaust fan of claim 24, wherein the first mounting plate is
pivotably connectable with the housing

29. The ventilation exhaust fan of claim 24, wherein the second mounting plate is pivotably connectable with the housing.
30. The ventilation exhaust fan of claim 24, wherein the second mounting plate defines a recess within which the second fan wheel is at least partially received.
31. The ventilation exhaust fan of claim 24, wherein the housing includes an electrical connector, and wherein each of the first motor and the second motor is electrically connectable with the electrical connector.
32. The ventilation exhaust fan of claim 24, further comprising a first cover releasably engageable with the housing to substantially enclose at least one of the first fan and the first motor and a second cover releasably engageable with the housing to substantially enclose at least one of the second fan and the second motor.
33. The ventilation exhaust fan of claim 24, further comprising a first cover releasably engageable with the housing and having a first volume and a second cover releasably engageable with the housing and having a second volume different than the first volume.

34. A method of changing a ventilation exhaust fan, comprising:
- providing a housing defining an interior space and having an opening communicating between the interior space and an exterior of the housing;
 - providing a first module coupled to the housing, the first module having a first support plate, a first fan wheel, and a first motor operably coupled to the first fan wheel, at least a portion of the first module extending into the interior space;
 - uncoupling the first module from the housing;
 - withdrawing the first module from the interior space;
 - removing the first support plate from the opening;
 - inserting at least a portion of a second module into the interior space, the second module having a second support plate; and
 - coupling the second module to the housing;
 - the second module having at least one of a second fan wheel and a second motor coupled to the second support plate, wherein the at least one of the second fan wheel and the second motor is different in size than the first fan wheel and the first motor, respectively.
35. The method of claim 34, wherein withdrawing the first module from the interior space includes pivoting the first support plate.
36. The method of claim 34, wherein the first support plate includes at least one fastener releasably engaged with the housing, and wherein uncoupling the first module from the housing includes uncoupling the at least one fastener from the housing.

37. The method of claim 34, wherein the second support plate includes at least one fastener releasably engaged with the housing, and wherein coupling the second module to the housing includes coupling the at least one fastener to the housing.

38. The method of claim 34, further comprising coupling a cover to the housing to substantially enclose the second module.

39. The method of claim 34, wherein the housing includes an electrical connector and the first motor is electrically engageable with the electrical connector to receive electrical power, the method further comprising uncoupling the first motor from the electrical connector without the use of tools.

40. The method of claim 39, further comprising electrically connecting the second motor to the electrical connector without the use of tools.

41. The method of claim 34, wherein the second support plate includes at least one fastener, and wherein coupling the second module to the housing includes engaging the at least one fastener with the housing and pivoting the second module from a first position in which the second support plate extends outwardly from the housing toward a second position in which the second support plate is positioned within the opening.

42. The method of claim 34, wherein the first module includes a cover, the method further comprising uncoupling the cover from the housing.